Appendix 9A
Bicycle Parking Design Manual, 2002

Many people refrain from riding their bicycles for basic transportation because of a lack of secure bicycle parking spaces. The purpose of this Bicycle Parking Design Manual is to assist with the selection and installation of bicycle parking.

What are the required criteria for an acceptable bicycle parking device?

- A durable, securely-anchored device that supports the frame of the bicycle in at least one place
- The device must accommodate a high security U-shaped lock that can secure the frame and at least one wheel or a cable lock that can secure the frame and both wheels.
- Each parking space must have the following dimensions: 2 feet wide, 6 feet long and 7 feet high

Examples of acceptable short-term bicycle parking devices:

"Inverted U" Racks

This rack provides two bicycle parking spaces and supports each bicycle frame in two places. It is one of the most recommended types of bicycle parking devices. In fact, some cities have decided to exclusively require this type of rack. The height and width of this rack vary (width 18 to 30 inches; height 32 to36 inches). Some trade names are "rib" and "bike dock."

Connected Series of Angled "Inverted U" Spaces

The rack can contain a series of connected "inverted U" sections. In order to count each "inverted U" as space for two bicycles, they must be situated so that there is adequate space between them. Otherwise each "inverted U" would count as only one space. The racks with parallel sections, where two bicycles can be parked on each side of the sections are shown below.

Continuous Chain of "Inverted U" Spaces

These racks are often referred to as "waves." The "inverted U" spaces in this type of rack are continuous and the bicycle parking spaces are perpendicular to the "inverted U" rather than parallel as in the single "inverted U" devices or the connected angled "inverted U" spaces discussed above. Some cities have made this rack type unacceptable because some cyclists park their bicycle parallel to the rack, potentially decreasing the number of bicycle spaces available to subsequent cyclists parking at the device.

We have chosen to allow this device, but caution its use. Below on the left are two bicycles parked properly. Below on the right are two bicycles parked parallel to the rack. While one more bicycle can be parked on the right side of the rack (in perpendicular position) in both views below, the situation of parking parallel to the rack could make it difficult or impossible to park another bicycle at the rack.

In addition, the manufacturers of some "wave" type racks state that their rack can hold more bicycles than is possible given the need for each space to be 2 feet wide and 6 feet long. The manufacturer of the "wave" rack pictured above states it will accommodate five bicycles. For that to be true bicycles would need to be parked from both directions and there would still be bicycles not fitting unless the 2 by 6 feet space is available. Therefore, caution must be used. If this type of rack is desired, consultation from Planning and Development Services is available to determine how many spaces can be counted, given the dimension of the rack and the available space for its installation.

Custom Bicycle Racks

There are some individuals who have fabricated a special bicycle rack. As long as each parking space meets the criteria listed in this Manual, special bicycle racks can be approved for use. Some examples are pictured below.

Each of these custom racks consists of a durable, securely-anchored device that supports the bicycle frame in two places, the ability to accommodate a U-shaped lock or a cable lock, and two parking spaces of 2 feet by 6 feet with adequate height. There are now some firms that manufacture something similar to the rack above on the left.

Examples of acceptable long-term bicycle parking devices:

Bicycle Bank

This is a secure bicycle parking device for one bicycle that is designed for long-term parking. It is only available from Graber Products, Madison, Wisconsin. The device has mechanisms that hold each wheel and the frame in place (as well as a locker for gear) and all are securely locked with one U-shaped lock.

Bicycle Locker

This is a fully enclosed, secure locker that can hold a bicycle and gear. It protects the bicycle from the weather and is intended for long-term storage. There are various mechanisms for locking the door.

Other Long-Term Parking
A secured storage facility that has ample room and accessibility for employees to park their bicycles may be used to satisfy the parking requirements as long as it meets all the criteria for an acceptable parking facility in this Manual.

Examples of Unacceptable Bicycle Racks:

Bicycle racks and parking devices that only support one wheel of the bicycle are not acceptable for satisfying the LDC Bicycle Parking Standards. Some names commonly used for these racks are:

- wheel holder
- fence style
- grid style

Illustrations of Unacceptable Bicycle Racks:

What are the requirements for selecting a location for the bicycle parking device?

- If there is one building associated with the installation, locate short-term bicycle parking devices at least as close to the primary entrance as is the nearest non-handicapped automobile parking space.
- Parking spaces must be at least 6 feet (1.8 m) long and 2 feet (0.6 m) wide with an overhead clearance of 7 feet (2.1m).
- Device must be a minimum of 2 feet from a parallel wall and 2.5 feet from a perpendicular wall.
- Provide an aisle of at least 5 feet (1.5 m) between rows of bicycle parking.
- If located on or next to a sidewalk, a minimum of 5 feet of clear sidewalk must remain when bicycles are parked at the device
- If the device is installed at a transit stop, its location cannot impede transit boarding.
- The bicycle parking device cannot impede pedestrian travel.
- Where automobile parking is covered, bicycle parking shall also be covered.
- If the installation is near a curb on a street with motor vehicle parking, at least three feet of space must remain between a bicycle parked at the rack and the curb.
- Whenever the device will be placed in the public right-of-way, the Public Works Department must approve the location.

What are the signage requirements for bicycle parking facilities?

- Instructional signs are required unless the design of the bicycle parking facility is so common or straightforward that its mode of use is self-evident to a prospective user.
- Directional signs are required if the parking locations are not easily visible when approaching the area. Directional signs that will be placed within the public right-of-way must conform to the Manual of Uniform Traffic Control Devices and be approved by the Public Works Department.

For more information or assistance, please contact Jefferson County Planning and Development Services 574-6230.